

State of West Virginia
Department of Environmental Protection - Office of Oil and Gas
Well Operator's Report of Well Work

API 47 - 033 - 06086 County Harrison District Simpson
Quad Rosemont Pad Name J Osborn Field/Pool Name _____
Farm name Judy M Osborn (LE) Well Number 213
Operator (as registered with the OOG) Arsenal Resources
Address 6031 Wallace Road Ext., Ste. 200 City Wexford State PA Zip 15090

As Drilled location NAD 83/UTM Attach an as-drilled plat, profile view, and deviation survey
Top hole Northing 4346636.237 Easting 567450.392
Landing Point of Curve Northing 4346685.177 Easting 566996.936
Bottom Hole Northing 4350105.177 Easting 565785.835

Elevation (ft) 1163.90 GL Type of Well ☒ New ☐ Existing Type of Report ☐ Interim ☒ Final
Permit Type ☐ Deviated ☐ Horizontal ☒ Horizontal 6A ☐ Vertical Depth Type ☐ Deep ☒ Shallow
Type of Operation ☐ Convert ☐ Deepen ☒ Drill ☐ Plug Back ☐ Redrilling ☐ Rework ☐ Stimulate
Well Type ☐ Brine Disposal ☐ CBM ☒ Gas ☐ Oil ☐ Secondary Recovery ☐ Solution Mining ☐ Storage ☐ Other _____
Type of Completion ☐ Single ☒ Multiple Fluids Produced ☐ Brine ☒ Gas ☐ NGL ☐ Oil ☐ Other _____
Drilled with ☐ Cable ☒ Rotary

Drilling Media Surface hole ☐ Air ☐ Mud ☒ Fresh Water Intermediate hole ☐ Air ☐ Mud ☒ Fresh Water ☐ Brine
Production hole ☐ Air ☒ Mud ☐ Fresh Water ☐ Brine
Mud Type(s) and Additive(s)
Synthetic Oil Based Mud

Date permit issued 03/12/2025 Date drilling commenced 03/27/2025 Date drilling ceased 09/29/2025
Date completion activities began 11/07/2025 Date completion activities ceased 04/18/2026
Verbal plugging (Y/N) N Date permission granted NA Granted by NA

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Please note: Operator is required to submit a plugging application within 5 days of verbal permission to plug

Freshwater depth(s) ft none reported Open mine(s) (Y/N) depths N
Salt water depth(s) ft none reported Void(s) encountered (Y/N) depths N
Coal depth(s) ft none reported Cavern(s) encountered (Y/N) depths N
Is coal being mined in area (Y/N) N

Reviewed by:

Jeff Pugh

8-13-2026

08/28/2026

Reviewed

approved

WR-35
Rev. 8/23/13

API 47-033 - 06086 Farm name Judy M Osborn (LE) Well number 213

CASING STRINGS	Hole Size	Casing Size	Depth	New or Used	Grade wt/ft	Basket Depth(s)	Did cement circulate (Y/N) * Provide details below*
Conductor	30"	24"	100' GL	New	94	NA	Y
Surface	17.5"	13 3/8"	813' GL	New	54.50	94'	Y
Coal	NA	NA	NA	NA	NA	NA	NA
Intermediate 1	12 1/4"	9 5/8"	1,519' GL	New	40	NA	Y
Intermediate 2	NA	NA	NA	NA	NA	NA	NA
Intermediate 3	NA	NA	NA	NA	NA	NA	NA
Production	8 1/2"	5 1/2"	19,769' GL	New	20	NA	Y
Tubing	NA	NA	NA	NA	NA	NA	NA
Packer type and depth set		NA					

Comment Details Cement to surface on Conductor, Surface, Intermediate. Lap onto intermediate on production.

CEMENT DATA	Class/Type of Cement	Number of Sacks	Slurry wt (ppg)	Yield (ft ³ /sks)	Volume (ft ³)	Cement Top (MD)	WOC (hrs)
Conductor	A	195	15.60	1.18	230	Surface	8+
Surface	A	720	15.60	1.2	867	Surface	8+
Coal	NA	NA	NA	NA	NA	NA	NA
Intermediate 1	A	510	15.6	1.19	605	Surface	8+
Intermediate 2	NA	NA	NA	NA	NA	NA	NA
Intermediate 3	NA	NA	NA	NA	NA	NA	NA
Production	A	1210/2665	14.5/15.0	1.292/1.142	1563/3044	431' GL	8+
Tubing	NA	NA	NA	NA	NA	NA	NA

Drillers TD (ft) 19,778' (GL) Loggers TD (ft) NA
 Deepest formation penetrated Marcellus Plug back to (ft) NA
 Plug back procedure NA

Kick off depth (ft) 6,758' (GL)

Check all wireline logs run ☐ caliper ☐ density ☐ deviated/directional ☐ induction
☐ neutron ☐ resistivity ☐ gamma ray ☐ temperature ☐ sonic

Well cored ☐ Yes ☒ No Conventional Sidewall Were cuttings collected ☒ Yes ☐ No

DESCRIBE THE CENTRALIZER PLACEMENT USED FOR EACH CASING STRING
 24" - No centralizers

13 3/8" - One (1) bow spring centralizer on every joint to Surface

9 5/8" - One (1) bow spring centralizer every joint from TD to surface

5 1/2" - One (1) Non-Weld Bowspring centralizer on every joint from TD of casing to end of curve. Then every other joint to KOP. Every third joint from KOP to TOC; there were no centralizers from TOC to surface.

WAS WELL COMPLETED AS SHOT HOLE ☐ Yes ☒ No DETAILS
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WAS WELL COMPLETED OPEN HOLE? ☐ Yes ☒ No DETAILS 07 2026

WERE TRACERS USED ☐ Yes ☒ No TYPE OF TRACER(S) USED
 WV Department of
 Environmental Protection

08/28/2026

[illegible]

STIMULATION INFORMATION PER STAGE

[illegible]

08/28/2026

API 47- 033 - 06086

Farm name Judy M Osborn (LE)

Well number 213

PRODUCING FORMATION(S)

DEPTHS

Marcellus Shale 7,206 - 7,360' TVD 7,457 - 19,749' MD

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Please insert additional pages as applicable.

GAS TEST ☐ Build up ☐ Drawdown ☒ Open Flow

OIL TEST ☐ Flow ☐ Pump

SHUT-IN PRESSURE Surface _____ psi Bottom Hole _____ psi DURATION OF TEST 24 hrs

OPEN FLOW Gas 14,189 mcfpd Oil 0 bpd NGL 0 bpd Water 796 bpd
GAS MEASURED BY ☐ Estimated ☒ Orifice ☐ Pilot

LITHOLOGY/ FORMATION	TOP DEPTH IN FT NAME TVD	BOTTOM DEPTH IN FT TVD	TOP DEPTH IN FT MD	BOTTOM DEPTH IN FT MD	DESCRIBE ROCK TYPE AND RECORD QUANTITY AND TYPE OF FLUID (FRESHWATER, BRINE, OIL, GAS, H ₂ S, ETC)
Sand/Silt	0	220	0	220	No water reported.
Sand/Silt/Coal	220	1325	220	1325	Coal @ 225', 325', 400', 440', 530', 595', 615'; WVGES
Big Lime	1325	1506	1325	1506	Limestone
Sand/Silt/Shale	1506	2970	1506	2970	Sandstone, Siltstone, Shale
Balltown	2970	3020	2970	3020	Sandstone
Sand/Silt/Shale	3020	4300	3020	4300	Sandstone, Siltstone, Shale
Benson	4300	4370	4300	4370	Sandstone
Sand/Silt/Shale	4370	6921	4370	7111	Sandstone, Siltstone, Shale
Burkett	6921	6939	7111	7133	Shale
Tully	6939	6988	7133	7195	Limestone
Mahantango	6988	7145	7195	7459	Shale
Marcellus	7145	7198	7459	7664	Shale
Lower Marcellus	7198	7236*	7664	19805	Shale - Gas shows through lateral
Onondaga	7236*	NA	NA	NA	Limestone, *Onondaga not penetrated - top est. based on 033-05933 thickness

Please insert additional pages as applicable.

Drilling Contractor Precision Drilling

Address 10350 Richmond Ave. Suite 700 City Houston State TX Zip 77042

Logging Company NA

Address _____ City _____ State _____ Zip _____

Cementing Company Halliburton

Address 4999 E Pointe Drive City Zanesville State OH Zip 43701

Stimulating Company ProFrac

Address 333 Shops Boulevard City Willow Park State TX Zip 76087

Please insert additional pages as applicable.

Completed by Arsenal Resources

Telephone 724-940-1100

Signature  Title Geologist & Permitting Specialist Date 07/28/2026

Submittal of Hydraulic Fracturing Chemical Disclosure Information

Attach copy of FRACFOCUS Registry

08/28/2026

WR-36
Rev. 5/08

Date: 7/28/2026
Operators Well Number: J Osborn 213
API Well No: 47-033 - 06086

State of West Virginia
Department of Environmental Protection
Office of Oil and Gas

Well Operator's Report of
Initial Gas-Oil Ratio

Well Operator Arsenal Resources LLC
Address 6031 Wallace Road Ext. Suite 200
Wexford, PA 15090

Designated Agent Eric Morris
Address 633 West Main Street
Bridgeport, WV 26330

Geological Target Formation: Marcellus Depth 7,459 feet
Perforation Interval 7,457 - 19,749 feet

Guidelines for testing:

1. A minimum of gas vented or flared.
2. A 24 hour pre-flow into pipelines or tanks.
3. Uniform producing rate during the 24 hour test per test period.
4. Measurement standards as for Form WR-39, "Report of Annual Production" (see 35CSR4-15)
5. Separate Form WR-36 for each producing formation in a multiple completion.

TEST DATA

Start of Test Date 6/7/2026	Time 5:00 AM	End of Test Date 6/8/2026	Time 6:00 AM	Duration of Test 24 Hrs
Tubing Pressure NA	Casing Pressure 1200	Separator Pressure 297	Separator Temperature 73	
Oil Production During Test 0	Gas Production During Test 14,189	Water Production During Test 796	BBLs 36870 -Salinity	
Oil Gravity NA	Producing Method (flowing, pumping, gas lift etc.) Flowing			

GAS PRODUCTION

Measurement Method Flange Tap ☒ Pipe Tap ☐ L-10 ☐		Positive Choke ☐ Positive flow prover ☒
Orifice diameter	Pipe Diameter (inside)	Nominal Choke Size inches 48/64"
Differential Pressure range	Max. Static pressure range	Prover and Orifice diameter - inches 4.0" run with 3.0" orifice
Differential 133		Static
Gas Gravity (Air = 1.0) Measured .572 Estimated	Flowing Temperature 73	Gas Temperature 105
24 Hour Coefficient	24 Hour coefficient pressure PSIA	

TEST RESULTS

Daily Oil 0	Daily Water 796 BBLs	Daily Gas 14,189 MCF	Gas-Oil Ratio NA
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Arsenal Resources LLC
BY Eric Morris Well Operator
ITS: Geologist & Permitting Specialist

08/28/2026

Well Header
Well Name: J Osborn 213 API/UWI: 47-033-06086 Lease: Pad Name: J Osborn Operator: Arsenal Resources Well Type:
Orig KB Elev (ft): 1,189.00 Water Depth (ft): Lic Date: Spud Date: 9/20/2025 RR Date: 9/28/2025 Well Subtype:
County: Harrison District: Division: Division Code: UTM N (m):
Datum: Latitude (°): 39° 15' 59.328" N Longitude (°): 80° 13' 5.563" W UTM E (m):
Jobs
Job Cat: Completion/Workover Job Type: Initial Completion Start Date: 9/2/2025 End Date:

Perforations	Top (ftKB)	Btm (ftKB)	Entered Shot Total	Zone
Date				
4/18/2026	7,457.00	7,615.00	30	Marcellus
4/18/2026	7,652.00	7,814.00	30	Marcellus
4/17/2026	7,852.00	8,014.00	30	Marcellus
4/17/2026	8,052.00	8,214.00	30	Marcellus
4/17/2026	8,252.00	8,414.00	30	Marcellus
4/17/2026	8,452.00	8,614.00	30	Marcellus
4/17/2026	8,652.00	8,814.00	30	Marcellus
4/17/2026	8,852.00	9,014.00	30	Marcellus
4/17/2026	9,052.00	9,215.00	30	Marcellus
4/16/2026	9,252.00	9,414.00	30	Marcellus
4/16/2026	9,452.00	9,614.00	30	Marcellus
4/16/2026	9,652.00	9,814.00	30	Marcellus
4/16/2026	9,852.00	10,015.00	30	Marcellus
4/15/2026	10,050.00	10,214.00	30	Marcellus
4/15/2026	10,252.00	10,414.00	30	Marcellus
4/15/2026	10,452.00	10,614.00	30	Marcellus
4/15/2026	10,652.00	10,814.00	30	Marcellus
4/15/2026	10,850.00	11,014.00	30	Marcellus
4/14/2026	11,052.00	11,215.00	30	Marcellus
4/14/2026	11,252.00	11,414.00	30	Marcellus
4/14/2026	11,452.00	11,614.00	30	Marcellus
4/14/2026	11,652.00	11,814.00	30	Marcellus
4/14/2026	11,852.00	12,014.00	30	Marcellus
4/13/2026	12,052.00	12,214.00	30	Marcellus
4/13/2026	12,252.00	12,414.00	30	Marcellus
4/13/2026	12,453.00	12,614.00	30	Marcellus
4/12/2026	12,652.00	12,814.00	30	Marcellus
4/12/2026	12,852.00	13,014.00	30	Marcellus
4/12/2026	13,052.00	13,214.00	30	Marcellus
4/12/2026	13,252.00	13,411.00	30	Marcellus
4/11/2026	13,452.00	13,614.00	30	Marcellus
4/11/2026	13,652.00	13,814.00	30	Marcellus
4/11/2026	13,852.00	14,014.00	30	Marcellus
4/11/2026	14,052.00	14,214.00	30	Marcellus
4/11/2026	14,252.00	14,414.00	30	Marcellus
4/10/2026	14,452.00	14,614.00	30	Marcellus
4/10/2026	14,652.00	14,817.00	30	Marcellus
4/10/2026	14,852.00	15,014.00	30	Marcellus
4/10/2026	15,052.00	15,215.00	30	Marcellus
4/9/2026	15,251.00	15,414.00	30	Marcellus
4/9/2026	15,452.00	15,614.00	30	Marcellus
4/9/2026	15,652.00	15,814.00	30	Marcellus
4/9/2026	15,852.00	16,014.00	30	Marcellus
4/9/2026	16,052.00	16,214.00	30	Marcellus
4/8/2026	16,252.00	16,414.00	30	Marcellus
4/8/2026	16,452.00	16,614.00	30	Marcellus
4/8/2026	16,652.00	16,814.00	30	Marcellus
4/8/2026	16,852.00	17,013.00	30	Marcellus
4/8/2026	17,052.00	17,214.00	30	Marcellus
4/7/2026	17,252.00	17,411.00	30	Marcellus
4/7/2026	17,452.00	17,614.00	30	Marcellus
4/7/2026	17,652.00	17,814.00	30	Marcellus
4/7/2026	17,853.00	18,014.00	30	Marcellus
4/7/2026	18,052.00	18,214.00	30	Marcellus
4/6/2026	18,251.00	18,414.00	30	Marcellus
4/6/2026	18,452.00	18,614.00	30	Marcellus
4/6/2026	18,652.00	18,814.00	30	Marcellus
4/6/2026	18,852.00	19,014.00	30	Marcellus
4/5/2026	19,052.00	19,211.00	30	Marcellus
4/5/2026	19,252.00	19,414.00	30	Marcellus
4/5/2026	19,452.00	19,614.00	30	Marcellus
11/7/2025	19,652.00	19,749.00	30	Marcellus

Stimulations Summary							
Start Date: 4/5/2026							
R Treat Avg (bbl/min): P Treat Avg (psi): Mass Prop Tot (lb): 30,819,670.0 Vol Clean Total (bbl): 570,975.00 Frac Grad Avg (psi/ft): 1.24							
Stimulation Intervals							
Interval Number	Start Date	Slurry Rate Avg (bbl/min)	P Treat Avg (psi)	P Breakdown (psi)	ISIP (psi)	Proppant Total OR (lb)	Vol Clean Total (bbl)
1	4/5/2026	86.80	9,498.00	10,572.00	6,062.00	257,900.00	6,997.00
2	4/5/2026	90.10	9,386.00	6,643.00	5,551.00	505,980.00	9,632.00
3	4/5/2026	89.10	9,369.00	6,550.00	5,992.00	494,620.00	9,739.00
4	4/6/2026	89.90	9,326.00	6,983.00	5,884.00	502,000.00	9,684.00
5	4/6/2026	90.40	9,276.00	6,505.00	5,161.00	500,770.00	9,689.00
6	4/6/2026	89.90	9,104.00	7,279.00	6,664.00	507,220.00	9,794.00
7	4/6/2026	90.40	9,142.00	7,349.00	5,682.00	501,680.00	10,683.00
8	4/6/2026	89.70	8,907.00	7,368.00	5,747.00	500,020.00	9,286.00
9	4/7/2026	89.60	8,799.00	7,649.00	6,394.00	499,780.00	9,515.00
10	4/7/2026	90.30	8,221.00	4,927.00	6,324.00	500,560.00	9,142.00
11	4/7/2026	90.60	9,153.00	7,441.00	6,087.00	500,480.00	9,055.00
12	4/7/2026	90.30	9,135.00	7,210.00	5,685.00	501,800.00	9,345.00
13	4/7/2026	90.10	9,125.00	7,181.00	5,450.00	499,640.00	9,282.00
14	4/8/2026	90.10	8,977.00	7,209.00	5,872.00	499,900.00	9,282.00
15	4/8/2026	90.30	9,116.00	7,273.00	6,496.00	504,640.00	9,947.00
16	4/8/2026	89.00	9,582.00	6,910.00	5,452.00	497,160.00	9,536.00
17	4/8/2026	87.80	8,984.00	7,185.00	5,504.00	500,560.00	9,160.00
18	4/8/2026	85.00	9,205.00	7,370.00	4,878.00	507,060.00	9,202.00
19	4/9/2026	89.90	8,830.00	6,961.00	5,257.00	501,620.00	9,045.00

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20	4/9/2026	89 70	8,951.00	6,965.00	5,309.00	500,480.00	9,120.00
21	4/9/2026	89 50	8,809.00	5,490.00	5,450.00	505,160.00	9,210.00
22	4/9/2026	89 50	8,698.00	7,259.00	5,556.00	500,780.00	9,285.00
23	4/10/2026	90 00	8,782.00	7,188.00	5,226.00	502,500.00	9,107.00
24	4/10/2026	87 80	8,445.00	7,345.00	5,726.00	501,220.00	9,390.00
25	4/10/2026	89 90	8,465.00	7,170.00	5,920.00	499,360.00	8,999.00
26	4/10/2026	90 10	8,695.00	7,463.00	6,097.00	501,400.00	9,168.00
27	4/10/2026	86 90	9,120.00	7,266.00	4,878.00	504,860.00	10,396.00
28	4/11/2026	90 20	8,586.00	7,349.00	6,112.00	503,520.00	9,140.00
29	4/11/2026	89 30	8,598.00	6,848.00	5,801.00	500,900.00	9,328.00
30	4/11/2026	90 10	8,291.00	6,881.00	5,850.00	499,640.00	9,104.00
31	4/11/2026	89 90	8,350.00	6,705.00	5,947.00	504,200.00	9,063.00
32	4/12/2026	90 30	8,652.00	7,008.00	5,627.00	500,880.00	9,214.00
33	4/12/2026	90 50	8,700.00	5,674.00	6,151.00	500,780.00	9,055.00
34	4/12/2026	90 20	8,742.00	5,211.00	6,598.00	501,440.00	9,186.00
35	4/12/2026	89 20	8,783.00	7,294.00	6,385.00	504,220.00	9,025.00
36	4/12/2026	89 60	8,730.00	7,325.00	5,483.00	500,380.00	8,979.00
37	4/13/2026	88 90	8,774.00	7,093.00	11,487.00	453,260.00	10,200.00
38	4/13/2026	90 20	8,608.00	6,803.00	6,025.00	507,500.00	9,157.00
39	4/14/2026	90 00	8,459.00	6,831.00	6,025.00	501,040.00	9,150.00
40	4/14/2026	89 90	8,248.00	6,797.00	5,783.00	504,580.00	9,143.00
41	4/14/2026	90 00	8,412.00	6,376.00	5,055.00	508,720.00	8,906.00
42	4/14/2026	89 50	8,539.00	7,319.00	5,845.00	506,150.00	9,095.00
43	4/14/2026	89 90	8,503.00	7,368.00	6,281.00	500,640.00	9,115.00
44	4/14/2026	90 50	8,273.00	7,117.00	5,560.00	506,700.00	9,058.00
45	4/15/2026	89 70	8,408.00	6,932.00	5,481.00	500,680.00	8,997.00
46	4/15/2026	89 90	8,262.00	6,705.00	5,546.00	500,260.00	9,268.00
47	4/15/2026	89 40	8,418.00	7,296.00	5,971.00	500,420.00	8,908.00
48	4/15/2026	89 10	8,512.00	7,248.00	6,123.00	500,140.00	9,007.00
49	4/15/2026	89 90	8,329.00	7,249.00	5,373.00	494,160.00	8,975.00
50	4/16/2026	89 60	7,996.00	8,372.00	5,527.00	501,240.00	9,067.00
51	4/16/2026	89 50	8,176.00	6,412.00	5,790.00	503,520.00	9,310.00
52	4/16/2026	89 40	8,638.00	7,547.00	6,127.00	500,380.00	8,881.00
53	4/16/2026	89 60	8,707.00	8,928.00	6,291.00	500,280.00	9,112.00
54	4/16/2026	90 20	8,917.00	7,698.00	5,958.00	501,820.00	9,215.00
55	4/17/2026	89 60	8,582.00	7,595.00	5,532.00	500,000.00	10,299.00
56	4/17/2026	90 00	8,136.00	7,129.00	5,783.00	499,980.00	8,930.00
57	4/17/2026	89 80	8,221.00	6,792.00	5,080.00	500,640.00	8,963.00
58	4/17/2026	89 50	8,098.00	7,357.00	5,192.00	504,020.00	9,059.00
59	4/18/2026	89 80	8,015.00	6,684.00	5,778.00	500,840.00	9,131.00
60	4/18/2026	89 10	8,231.00	6,511.00	5,380.00	505,620.00	9,009.00
61	4/18/2026	88 20	7,883.00	7,182.00	5,488.00	501,700.00	9,067.00
62	4/18/2026	89 40	8,078.00	7,889.00	5,401.00	500,320.00	8,992.00

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08/28/2026

Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	04/05/2026
Job End Date:	04/18/2026
State:	West Virginia
County:	Harrison
API Number:	47-033-06086-00-00
Operator Name:	Arsenal Resources
Well Name and Number:	J Osborn 213
Latitude:	39.266445
Longitude:	-80.218117
Datum:	NAD27
Federal Well:	NO
Indian Well:	NO
True Vertical Depth:	7248
Total Base Water Volume (gal)*:	25608156
Total Base Non Water Volume:	0



Water Source	Percent
Other, > 1000TDS	100.00%

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Environmental Protection

Hydraulic Fracturing Fluid Composition:

Trade Name	Supplier	Purpose	Ingredients	Chemical Abstract Service Number (CAS #)	Maximum Ingredient Concentration in Additive (% by mass)**	Maximum Ingredient Concentration in HF Fluid (% by mass)**	Comments
Water	Operator	Carrier/Base Fluid					
			Water	7732-18-5	100.00000	86.98461	None
Sand (100 Mesh Proppant)	ProFrac	Proppant					
			Crystalline Silica (quartz)	14808-60-7	100.00000	6.29528	None
Sand (40/70 White Proppant)	ProFrac	Proppant					
			Crystalline Silica (quartz)	14808-60-7	100.00000	6.23748	None
Hydrochloric Acid (7.5%)	Cooper Natural	Acidizing					
			Water	7732-18-5	92.50000	0.39741	None
			Hydrochloric Acid	7647-01-0	7.50000	0.03222	None
Other Chemical(s)	Listed Above	See Trade Name(s) List					
			Water	7732-18-5	92.50000	0.39741	None

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			Water	7732-18-5	85.00000	0.01309	None
			Ammonium chloride	12125-02-9	5.00000	0.00291	None
			Tall Oil fatty amide	68155-20-4	5.00000	0.00291	None
			Alcohols, C11-14-iso, C-13-rich, ethoxylated	78330-21-9	5.00000	0.00291	None
			Quaternary ammonium compounds,benzyl-C12-16-alkyldimethyl, chlorides	68424-85-1	5.00000	0.00102	None
			Ethylene glycol	107-21-1	42.00000	0.00090	None
			Pyridinium, 1-(phenylmethyl)-, Et Me derivs, chloride	68909-18-2	25.00000	0.00053	None
			Citic Acid	77-92-9	10.00000	0.00021	None
			Alcohols, C12 - 14 secondary, ethoxylated	84133-50-6	8.00000	0.00017	None
			Water	7732-18-5	5.00000	0.00011	None
			2-Propenal, 3-phenyl	104-55-2	4.00000	0.00009	None
			Methanol	67-56-1	2.00000	0.00004	None
			Methyl 9-decenoate	25601-41-6	1.00000	0.00002	None
			Methyl 9-dedecenoate	39202-17-0	1.00000	0.00002	None
			Sodium xylene sulfonate	1300-72-7	0.30000	0.00001	None
ProSlick 773	ProFrac	Friction Reducer					
			Petroleum distillates, hydrotreated light	64742-47-8	30.00000	0.01745	None
			Ammonium chloride	12125-02-9	5.00000	0.00291	None
			Tall Oil fatty amide	68155-20-4	5.00000	0.00291	None
			Alcohols, C11-14-iso, C-13-rich, ethoxylated	78330-21-9	5.00000	0.00291	None
Hydrochloric Acid (15%)	Cooper Natural	Acidizing					
			Water	7732-18-5	85.00000	0.01309	None
			Hydrochloric Acid	7647-01-0	15.00000	0.00231	None
BioSuiteGQ123X	ProFrac	Biocide					
			glutaral	111-30-8	15.00000	0.00307	None
			Quaternary ammonium compounds,benzyl-C12-16-alkyldimethyl, chlorides	68424-85-1	5.00000	0.00102	None
Acid Pack Pro LT	ProFrac	Acid Inhibitor					
			Ethylene glycol	107-21-1	42.00000	0.00090	None

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			Pyridinium, 1-(phenylmethyl)-, Et Me derivs, chloride	68909-18-2	25.00000	0.00053	None
			Ciric Acid	77-92-9	10.00000	0.00021	None
			Alcohols, C12 - 14 secondary, ethoxylated	84133-50-6	8.00000	0.00017	None
			Water	7732-18-5	5.00000	0.00011	None
			2-Propenal, 3-phenyl	104-55-2	4.00000	0.00009	None
			Methanol	67-56-1	2.00000	0.00004	None
			Isotridecanol, ethoxylated	69011-36-5	1.80000	0.00004	None
			Methyl 9-decenoate	25601-41-6	1.00000	0.00002	None
			Methyl 9-dedecenoate	39202-17-0	1.00000	0.00002	None
			Sodium xylene sulfonate	1300-72-7	0.30000	0.00001	None
ProChek 170	ProFrac	Scale Inhibitor					
			Methyl alcohol	67-56-1	5.00000	0.00100	None

Ingredients shown above are subject to 29 CFR 1910.1200(i) and appear on Material Safety Data Sheets (MSDS). Ingredients shown below are Non-MSDS

* Total Water Volume sources may include various types of water including fresh water, produced water, and recycled water

** Information is based on the maximum potential for concentration and thus the total may be over 100%

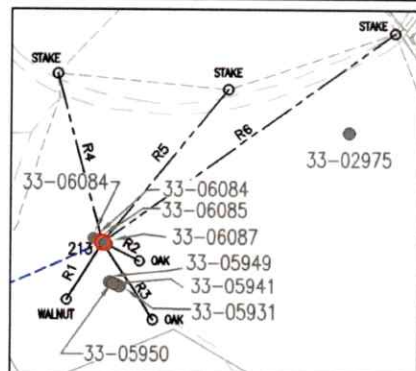
Note: For Field Development Products (products that begin with FDP), MSDS level only information has been provided.

Ingredient information for chemicals subject to 29 CFR 1910.1200(i) and Appendix D are obtained from suppliers Material Safety Data Sheets (MSDS)

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BHL is located on topo map 12,866 feet south of Latitude: 39°20'00"
SHL is located on topo map 9,164 feet south of Latitude: 39°17'30"



LINE	BEARING	DISTANCE
R1	S 31°25'41" W	302.80'
R2	S 63°28'30" E	182.60'
R3	S 33°03'51" E	409.65'
R4	N 15°03'13" W	774.95'
R5	N 39°05'49" E	874.60'
R6	N 54°11'18" E	1584.05'

NOTES:

- There are no water wells or developed springs within 250' of proposed well.
- There are no existing buildings within 625' of proposed well.
- Proposed well is greater than 100' from perennial stream, wetland, pond, reservoir or lake.
- There are no native trout streams within 300' of proposed well.
- Proposed well is greater than 1000' from surface/groundwater intake or public water supply.
- It is not the purpose or intention of this plat to represent surveyed locations of the surface or mineral parcels depicted herein. The location of the boundary lines, as shown, are based on record deed descriptions, field evidence found and/or tax map position, unless otherwise noted.
- Well Spot Circle & Topo Mark Scale is 1"=2000'.

THRASHER

THE THRASHER GROUP, INC.
600 WHITE OAKS BLVD.
BRIDGEPORT, WV 26330
PHONE 304-624-4108



SEE PAGE 2 FOR PLAT

SEE PAGE 3 FOR SURFACE OWNER TABLE

AS-DRILLED PLAT

J OSBORN HSOP 16 213 PERMITTED		
SURFACE HOLE LOCATION (SHL)		
UTM 17-NAD83 (M):	NAD83, WV NORTH (FT)	NAD83, GEOGRAPHIC
NORTHING: 4346636.238	NORTHING: 279972.886	LAT-(N) 39.266445
EASTING: 567450.391	EASTING: 1765184.207	LONG-(W) 80.218117
LANDING POINT LOCATION (LPL)		
UTM 17-NAD83 (M):	NAD83, WV NORTH (FT)	NAD83, GEOGRAPHIC
NORTHING: 4346636.106	NORTHING: 280048.410	LAT-(N) 39.266621
EASTING: 567420.475	EASTING: 1765174.355	LONG-(W) 80.223098
BOTTOM HOLE LOCATION (BHL)		
UTM 17-NAD83 (M):	NAD83, WV NORTH (FT)	NAD83, GEOGRAPHIC
NORTHING: 4350126.958	NORTHING: 291519.669	LAT-(N) 39.298027
EASTING: 565757.502	EASTING: 1759819.758	LONG-(W) 80.237398

J OSBORN HSOP 16 213 AS-DRILLED		
SURFACE HOLE LOCATION (SHL)		
UTM 17-NAD83 (M):	NAD83, WV NORTH (FT)	NAD83, GEOGRAPHIC
NORTHING: 4346636.237	NORTHING: 279972.880	LAT-(N) 39.266445
EASTING: 567450.392	EASTING: 1765184.210	LONG-(W) 80.218117
LANDING POINT LOCATION (LPL)		
UTM 17-NAD83 (M):	NAD83, WV NORTH (FT)	NAD83, GEOGRAPHIC
NORTHING: 4346636.177	NORTHING: 280158.220	LAT-(N) 39.266921
EASTING: 566996.936	EASTING: 1763698.920	LONG-(W) 80.223368
BOTTOM HOLE LOCATION (BHL)		
UTM 17-NAD83 (M):	NAD83, WV NORTH (FT)	NAD83, GEOGRAPHIC
NORTHING: 4350105.177	NORTHING: 291446.650	LAT-(N) 39.297828
EASTING: 565785.835	EASTING: 1759911.540	LONG-(W) 80.237071



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Environmental Protection

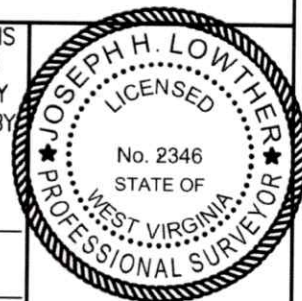
FILE #: J OSBORN HSOP 16 213
DRAWING #: J OSBORN HSOP 16 213
SCALE: AS SHOWN
MINIMUM DEGREE
OF ACCURACY: 1/2500
PROVEN SOURCE
OF ELEVATION: U.S.G.S. MONUMENT
THOMAS 1498.81'

I, THE UNDERSIGNED, HEREBY CERTIFY THAT THIS
PLAT IS CORRECT TO THE BEST OF MY KNOWLEDGE AND
BELIEF AND SHOWS ALL THE INFORMATION REQUIRED BY
LAW AND THE REGULATIONS ISSUED AND PRESCRIBED BY
THE DEPARTMENT OF ENVIRONMENTAL PROTECTION.

Signed:

R.P.E.:

L.L.S.: P.S. No. 2346



(+) DENOTES LOCATION OF WELL ON
UNITED STATES TOPOGRAPHIC MAPS
WVDEP
OFFICE OF OIL & GAS
601 57TH STREET
CHARLESTON, WV 25304



DATE: JULY 27, 2026

OPERATOR'S WELL #: J OSBORN HSOP 16 213

API WELL #: 47 033 06086
STATE COUNTY PERMIT

Well Type: ☐ Oil ☐ Waste Disposal ☒ Production ☐ Deep
☒ Gas ☐ Liquid Injection ☐ Storage ☒ Shallow

WATERSHED: SIMPSON CREEK

ELEVATION: 1163.90'±

COUNTY/DISTRICT: HARRISON / SIMPSON QUADRANGLE: ROSEMONT, WV 7.5'

SURFACE OWNER: JUDY M OSBORN (LE) (JUDY M OSBORN IRREVOCABLE TRUST) ACREAGE: 70.00±

OIL & GAS ROYALTY OWNER: Gobel Osborn, et al ACREAGE: 1,399.52±

DRILL ☒ CONVERT ☐ DRILL DEEPER ☐ REDRILL ☐ FRACTURE OR STIMULATE ☒PLUG OFF OLD FORMATION ☐ PERFORATE NEW FORMATION ☐ PLUG & ABANDON ☐CLEAN OUT & REPLUG ☐ OTHER CHANGE ☐ (SPECIFY):

TARGET FORMATION: MARCELLUS ESTIMATED DEPTH: 7360'± TWD / 19,805' TWD

WELL OPERATOR ARSENAL RESOURCES DESIGNATED AGENT ERIC MORRIS

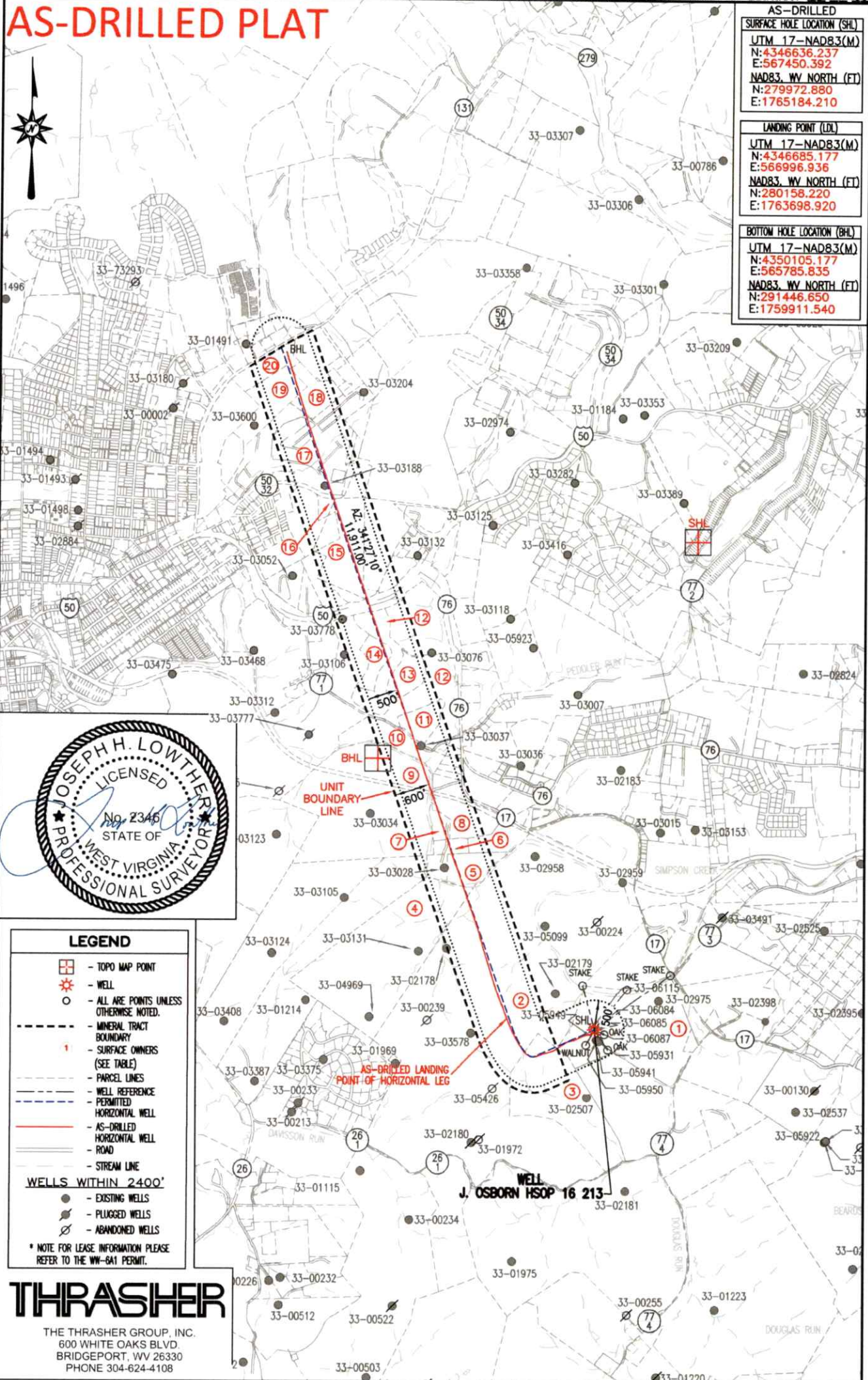
Address 6031 WALLACE ROAD EXTENSION, SUITE 200 Address 633 WEST MAIN ST.

City WEXFORD State PA Zip Code 15090 City BRIDGEPORT State WV Zip Code 26330

08/28/2026

BHL is located on topo map 12,866 feet south of Latitude: 39°20'00"
SHL is located on topo map 9,164 feet south of Latitude: 39°17'30"

AS-DRILLED PLAT



BHL is located on topo map 8,133 feet west of Longitude: 80°12'30"
SHL is located on topo map 2,842 feet west of Longitude: 80°12'30"

AS-DRILLED	
SURFACE HOLE LOCATION (SHL)	
UTM 17-NAD83(M)	N:4346636.237
	E:567450.392
NAD83, WV NORTH (FT)	
	N:279972.880
	E:1765184.210
LANDING POINT (LPL)	
UTM 17-NAD83(M)	N:4346685.177
	E:566996.936
NAD83, WV NORTH (FT)	
	N:280158.220
	E:1763698.920
BOTTOM HOLE LOCATION (BHL)	
UTM 17-NAD83(M)	N:4350105.177
	E:565785.835
NAD83, WV NORTH (FT)	
	N:291446.650
	E:1759911.540



- LEGEND**
- TOPO MAP POINT
 - WELL
 - ALL ARE POINTS UNLESS OTHERWISE NOTED.
 - MINERAL TRACT BOUNDARY
 - SURFACE OWNERS (SEE TABLE)
 - PARCEL LINES
 - WELL REFERENCE
 - PERMITTED HORIZONTAL WELL
 - AS-DRILLED HORIZONTAL WELL
 - ROAD
 - STREAM LINE
- WELLS WITHIN 2400'**
- EXISTING WELLS
 - PLUGGED WELLS
 - ABANDONED WELLS
- * NOTE FOR LEASE INFORMATION PLEASE REFER TO THE WV-641 PERMIT.

THRASHER
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600 WHITE OAKS BLVD.
BRIDGEPORT, WV 26330
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DATE: JULY 27, 2026	 STATE OF WEST VIRGINIA DIVISION OF ENVIRONMENTAL PROTECTION OFFICE OF OIL AND GAS	FILE #: J OSBORN HSOP 16 213
OPERATOR'S WELL #: J OSBORN HSOP 16 213		DRAWING #: J OSBORN HSOP 16 213
API WELL #: 47 033 06086		SCALE: 1" = 2000'
WELL OPERATOR ARSENAL RESOURCES Address 6031 WALLACE ROAD EXTENSION, SUITE 200 City WEXFORD State PA Zip Code 15090		DESIGNATED AGENT ERIC MORRIS Address 633 WEST MAIN ST. City BRIDGEPORT State WV Zip Code 26330

AS-DRILLED PLAT

J OSBORN WELL 213 AS-DRILLED			
ID	SURFACE OWNER	DIST-TM-PAR	ACREAGE
1	OSBORN JUDY M (LE) (JUDY M OSBORN IRREVOCABLE TRUST)	15-0330-0005	56.67
2	HARRON CAROLYN S	15-0330-0003	355.02
3	DAVIS CHARLES THOMAS II	15-0330-0004	41.84
2	HARRON CAROLYN S	15-0330-0003	355.02
4	WHYTE KAREN SUE	15-0330-0001	75.43
5	BENZAKEIN MARY ANNE	15-0310-0062	8.54
6	NUTTER CHARLES SCOTT & LEIGH ANN	15-0310-0060	3.79
7	NUTTER CHARLES SCOTT & LEIGH ANN	15-0310-0042	3.11
8	BENZAKEIN MARY ANNE	15-0310-0043	11.25
RXR	CSX RAILROAD	N/A	N/A
9	KINGERY SARAH H	15-0310-0018	22.22
10	SNIDER DANNY M & ALESIA J	15-0310-0017	13.06
ROAD	LANGTOWN ROAD	N/A	N/A
11	G A L LAND COMPANY	15-0310-0003-0004	7.56
12	G A L LAND COMPANY	15-0310-0003	38.79
13	G A L LAND COMPANY	15-0310-0003-0006	7.77
12	G A L LAND COMPANY	15-0310-0003	38.79
14	G A L LAND COMPANY	15-0310-0003-0005	6.48
12	G A L LAND COMPANY	15-0310-0003	38.79
ROAD	US ROUTE 50	N/A	N/A
15	BENEDUM AIRPORT AUTHORITY	16-0310-0004	23.83
16	HARRISON COUNTY DEVELOPMENT AUTHORITY	15-0290-0044	1.68
ROAD	AIRPORT ROAD	N/A	N/A
17	BELASCO MOBILE HOME SALES	15-0290-0029	54.25
18	CITY OF BRIDGEPORT	16-0290-0029-0003	9.27
19	CITY OF BRIDGEPORT	16-0290-0028	15.03
20	BELASCO STEPHANIE ANN & JUSTIN DUANE MOLINA	15-0290-0029-0007	8.47

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DATE: JULY 27, 2026	 STATE OF WEST VIRGINIA DIVISION OF ENVIRONMENTAL PROTECTION OFFICE OF OIL AND GAS	FILE #: J OSBORN HSOP 16 213
OPERATOR'S WELL #: J OSBORN HSOP 16 213		DRAWING #: J OSBORN HSOP 16 213
API WELL #: 47 033 06086		SCALE: N/A
STATE COUNTY PERMIT		
WELL OPERATOR ARSENAL RESOURCES		DESIGNATED AGENT ERIC MORRIS
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City WEXFORD State PA Zip Code 15090		City BRIDGEPORT State WV Zip Code 26330

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